
Agro-Tourism Development Strategy in Desa Wisata Kaligono (Dewi Kano) of Kaligesing District of Purworejo Regency

✉ Siwi Harning Pambudi, Sunarto, Prabang Setyono
Environmental Science Study Program, Postgraduate Program,
Sebelas Maret University

Received: Januari 2018; Accepted: Maret 2018; Published: April 2018

DOI: <http://dx.doi.org/10.21107/agriekonomika.v7i1.3835>

ABSTRACT

This research aims were: to gain information about villagers' perception concerning to the plan of building an agro-tourism area in Dewi Kano, to find out the side effect of agro-tourism, to formulate the strategy in developing the agro-tourism. Researcher used observation, interview, questionnaire, and SWOT analysis (in formulating the agro-tourism development strategy) as methods. The results of the research show that the villagers of Dewi Kano are supporting the plan of developing their area as an agro-tourism; this is seen from their perceptions which tend to agree, because they understand that agro-tourism development can give benefits in ecology, economy, social, and management. The strategy which can be applied in developing agro-tourism of Dewi Kano is a progressive strategy; it means, the research location is in a great condition, so it will be well-developed by maximizing the opportunities.

Keywords: SWOT Analysis, Tourist Village, Developing Agro-tourism.

INTRODUCTION

Indonesia is rich of natural resources. One of the resource, for example, is available of becoming the main product of Indonesian economic. Indonesia's nature uniqueness is also destined to be managed as tourism objects, beside its usage in cultivation, production, plantation, horticulture and husbandry. The existence of tourism industry is expected to raise national income, together with the effort of creating economic growth according to National Medium Term Development Plan (RPJMN) 2015-2019 where tourism considered as a superior sector along with maritime, energy, and industry. Tourism sector development should be followed by conservation efforts to avoid any extinction of natural and biological resources. Tourism and agriculture exploitation is an alternative way for this developed country. Indonesia is a tropical and agricultural country which has abundant potential crops from agriculture, plantation, horticulture and husbandry.

Agriculture sector (primary) in Purworejo slowly steps aside into industry sector (secondary) and service business sector (tertiary) where one of the tertiary sector is tourism. This can be seen in Gross Domestic Regional Bruto (PDRB) of the regency; during these recent ten years, almost all of districts are experiencing the shift of economic structure. Based on the previous matter, according to Stephanus Aan as the head of Tourism Destination Development in Tourism and Culture Department, stated that the trend of economic growth from agriculture sector is decreasing than other sectors, despite its dominance. Another problems such as: the unstable price of agriculture products, and youngsters' migration from village to city; those are creating difficulties in exploiting agriculture sector. According to Budiarti dkk (2013), those problems are one of the difficulties in agriculture development, besides the low quality of farming land which is caused by: inappropriate cultivation,

✉ Corresponding author :

Address : Ir. Sutami Street, 36 A, Kentingan, Surakarta
Email : siwi.harning@gmail.com
Phone : (0271) 632450

© 2018 Universitas Trunojoyo Madura
p-ISSN 2301-9948 | e-ISSN 2407-6260

false imaging of agriculture, low appreciation in agriculture, low education system in rural area, and imbalance development between rural and urban area. Therefore, there is an alternative way to be done by combining the agriculture and tourism sector (agro-tourism) for the sake of their sustainable development.

Agro-tourism is as a series of tour activities which utilizes agriculture potentials as tourism objects, for example: farming land nature panorama, farming activities and production, and the farmers culture (Palit dkk, 2017). Agro-tourism is one of the agriculture business based on *uniqueness* concept. Each area has its own attractiveness in accordance with the agricultural specification, diversity of nature wealth, and its accessible location (Astuti, 2014). Yoeti (2000), stated that agro-tourism is a potential alternative which can be developed in rural area. Agro-tourism has been successfully promoting rural development and protecting environment, because agro-tourism tends to develop a more sustainable technique which involves the biological diversity, landscape, and natural resources (Mastronardi et al., 2015) agro-tourism is considered an agricultural activity and can only be performed by a farmer. Moreover, Italian national legislation forces the farmer to dedicate himself mainly to traditional farming, rather than to tourism activities. For this reason, environmental performances have been highlighted by analyzing only features and production systems of the farms. By utilizing the most frequent indicators used in studies regarding sustainability, the authors show how Italian agritourisms tend to develop more environmentally friendly agricultural methods, which have a positive impact on biodiversity, landscape and natural resources. The empirical analysis is based on the Italian FADN (Farm Accountancy Data Network).

Desa Wisata Kaligono (Dewi Kano) is one of the tourist village in Kaligesing district area in Purworejo regency. There are various potential tourism spot in Kaligono village. This is why since 2012, local

government officially launched Kaligono village as Kaligono Tourist Village. Those potential tourism spots are: waterfall and fountain as the main objects, cultural art, traditional and religious events, and culinary. There are also mangosteen, durians, and Etawa goats as agro-tourism objects. Farming process of agricultural products, mangosteen and durians, is not done optimally. It requires a good planning and development to make it optimal. Mangosteen and durians from Kaligono are free from pesticides, so this commodity has been awarded by Food Security Agent of Central Java Province. The extent of Kaligono village based on statistics data of Kaligesing district in 2016 is 893.310 Ha, consists of 662.774 Ha (74.19%) plantation area, 226.226 Ha (25.34%) of buildings and yards, 4.310 Ha (0.48%) of another terrains; most of villagers are farmers.

Farming land in Kaligono village consists of plantations. This plantation is planted with many types of plants: durian, mangosteen, *langsar*, *petai*, coconut, banana, clove, vanilla, *temulawak*, coffee, and others. Durian and mangosteen are dominating most all of the plantation area in Kaligono. Moreover, there are oldest living durian trees of tens and hundreds years old with their approximately 30-40 meters of height. According to Wiryanta (2002), durian in their real habitat can reach 200 years of age with 50 meters of height. Enough water and sunrise make them grow very well. Based on the statistic data of Kaligesing district in 2016, described that Kaligesing has 1500-4000 millimeters rainfall per year with approximately 12-691 rainfall per month in 240 meters above the sea level. Yards are dominated by dark brown, dark red, yellowish red *latosol* soil; and *lithosol* soil with the slope of 15 to 30 percent.

Durian plants can grow well in 1-800 meters of height above the sea level (*dpl*) and be optimum in 50-600 of height above the sea level with an ideal rainfall in approximately 1500 – 2500 millimeters per year, along with good topography not more than 35 degree of slope (Soedarya, 2009). Wiryanta (2002) stated that *latosol*, yel-

lowish red podsolik, and andosol are the suitable type of soil for cultivating durian. Those abiotic aspect support Dewi Kano as an agro-tourism object with durian and mangosteen as its main products. Since farming processes depend on climate, it is hard to predict the exact time of harvesting durian and mangosteen. Agro-tourism activities are not only relying on crop subsectors, plantation, and horticulture; but also relying on husbandry.

Kaligesing district is a business center for PE (Etawa goats) husbandry with goats' milk as its main product. According to Department of Agriculture of Purworejo, there are 50.089 goats (21.393 male goats, and 28.696 female goats). Almost all of the villagers in Kaligono have Etawa goats from various quality. Villagers are keeping Etawa goats as savings besides taking advantages from their milk production. Etawa goats' milk nutrients content is believed to be the same as breast milk. Utama (2011), described that the ability of Etawa goats in producing milk is quite high. This makes Etawa called as dual-purpose goat where half of their milk production is used by the farmers without affecting the lambs' growth. Practicing the process of milking can be shown as a tourist attraction. This activity can be an object of study tour where tourists will learn how to produce milk using sterilized tools, so that they can drink it directly. Agro-tourism is a great educational instrument, because visitors will be involved straightaway with the life of agriculture in rural area (I. Petroman et al., 2016). Dairy process in Dewi Kano can be used as a learning media in agriculture especially in husbandry sector. This is an activity of introducing a kind of educational recreation in rural tourism which also represents culture, relaxation, and last but not least, direct marketing in raising farmers' income (C. Petroman et al., 2016).

Development and arrangement of agro-tourism in Dewi Kano is expected to give good effect in ecology, economy, and social; as it is stated in research results done by Ulfah dkk (2017) in Bumiaji village

where the local potential of agro-tourism development has been successfully fulfilled the aspect of ecology, economy, and social (fulfills the aspect of sustainability). In agro-tourism development which is included in a part of ecotourism, there stands four pillars: environmental responsibility, local economic vitality, cultural sensitivity, and experiential richness (Haryanto, 2014). Agro-tourism is useful in fixing the quality of micro climate, keeping water cycle safe (hydrology), reducing danger of erosion, preserving environment, also giving an aesthetical sense to environment by organizing it well (Usman dkk, 2012). Natural Environment Status of Purworejo Regency shows that Kaligesing district area is troubled with landslides; so, developing an agro-tourism in one of the village there is a way of reducing the impacts.

Agro-tourism development plan in Dewi Kano is supported by the strategic location; in the center of Kaligesing district. This area of Kaligesing district is an alternative road from Purworejo regency (Central Java) to Kulon Progo regency (Special Region of Yogyakarta). Spatial Planning Area (RTRW) of Purworejo Regency Number 27 Year 2011, defines Kaligesing district area as Purwokulon (Purworejo-Kulon Progo) border corridors which is supported by nature potentials and good road network availability: provincial road in Purworejo until the border of Special Region of Yogyakarta Province in 18.47 kilometers long through Purworejo and Kaligesing district road, and local streets. This area is programmed to become a base for agriculture, tourism, business service, and commerce. In its progress, Purworejo-Kulon Progo region will be a new strategic spot together with the New Yogyakarta International Airport (NYIA) construction. In addition, it is also reinforced by the construction of Menoreh freeway by the government of Kulon Progo which the road passes Kaligesing district area; and the issuance of Presidential Decree number 46 Year 2017 about Borobudur Tourism Authority Boards of Directors where Kaligesing district is included in Borobudur's authority. This re-

quires a change of Purworejo Spatial Planning Area in accommodating the dynamics of area's future development.

Those strategic issues can be used as a chance for expanding tourism in Purworejo regency especially in the east side, as it is stated in Purworejo Regency's Vision: Creating a prosperous Purworejo based on agriculture, tourism, industry, and commerce according to the conception of its culture, environment, and people's oriented economy. Tourism development is one of the priority in Regional Medium Term Development Plan (RPJMD) of Purworejo year 2016 – 2021. Dewi Kano is located on a series of Menoreh hill; generally, it has mountainous and dale soil contour. Enough water and sunrise are helping various plantations to grow very well. It is possible to develop an agro-tourism there. This research is aimed to gain information about villagers' opinion and perception concerning to the plan of building an agro-tourism area in Dewi Kano, to find out the side effect of this agro-tourism, to formulate the strategy in developing agro-tourism.

METHODOLOGY

This research was done in November 2017 until Februari 2018 in Desa Wisata Kaligono (Dewi Kano), Kaligesing district, Purworejo regency. This village consists of eleven of Community Association, forty of Neighborhood Association, twenty three of Farmers Association, and two of Tourism Awareness Group. Observation was done in every small village in Kaligono to find out the perception and potential from villagers concerning in agro-tourism development.

Determination of Respondents

Population in this research were the head of families who lived in *Desa Wisata Kaligono*. There were 1.167 people. Respondents taking was done by random sampling; there were 100 people, based on the amount of sample which cannot be less than 5 percent or minimum 5 percent (Singarimbun dan Effendi, 2002).

Data Collection

Data collection was done to collect the primary and secondary data. Primary data was collected by conducting field observation, direct interview with villagers using structural questionnaires, interview with the *key persons*: Kaligono headman, Dewi Kano tourism director, head of Agricultural Extension of Kaligesing district, Kaligesing district office representative, and the head of Tourism Destination Development in Tourism and Culture Department of Purworejo Regency, head of Horticulture of Agriculture Department, and representative from Public Works Services. Secondary data was collected from literature review, relevant books source, research results, and articles which connected with the topic from electronic publications.

Data Analysis

Data analysis was done to find out the villagers' perception in agro-tourism development of Dewi Kano using statistic descriptive through interview with questionnaire. Questionnaire which was used in collecting data, had passed validity and reliability tests. Those test were done by giving questionnaire to 30 respondents who actively took part in organizing Dewi Kano tourist village. Questionnaire was considered reliable if the question items has *cronbach's alpha* > 0.6 (Azwar, 2014). From this reliability test measurement, there were *cronbach's alpha* in the amount of 0,959 > 0.6; in conclusion, the question items were considered strong.

Likert attitude analysis was used to assess respondents' answers. This analysis measures attitude from positive to negative condition, and shows level of agreement and disagreement towards the questions given by researchers (Kusmaryadi and Sugiarto, 2000). *Likert* scale is also known as *Summated Rating Method*. It will determine scores in *Likert* scale measurement through highest to lowest score taken from each respondents' answers. 100 respondents were chosen using *random sampling*. Question with *strongly agree* answer was valued 5, *agree* 4, *uncertain* 3,

disagree 2, and *strongly disagree 1*.

Data analysis was used to recommend strategy in developing agro-tourism using SWOT analysis; to identify the internal and external factors. SWOT analysis (*Strength, Weaknesses, Opportunities, Threats*) is one of the analysis tools in identifying many factors systematically; to construct strategies based on logic by maximizing strength also opportunities and minimizing weaknesses also threats at the same time (Rangkuti, 2015).

RESULT AND DISCUSSION

Perception of Villagers of Dewi Kano in Agro-tourism Development

Development and arrangement of agro-tourism in Dewi Kano to give positive effects to four aspects: ecology, economy, social, management. Those four aspects are used as indicators in a sustainable development, as it is stated in research results done by Ulfah dkk (2017) in Bumiaji village where the local potential of agro-tourism development has been successfully fulfilled the aspect of ecology, economy, and social (fulfills the aspect of sustainability). Agro-tourism development in a specific area requires supports from villagers, because without them all, there will be no success. (Pamulardi, 2006). To find out the supports from Kaligono villagers, researcher did interview by giving them opened and closed questionnaires. Opened questionnaire was given by researcher to know about respondents' background knowledge in agro-culture, as it seen in Table 1.

Table 1, shows information about background knowledge of the villagers in agro-culture; it is seen that they *understand*. It means that villagers really under-

stand about agro-culture activities. The *not understand* means that villagers think if agro-culture is limited in agriculture activities only. Most of respondents (63% of them) are not really understanding what kind of activities existed in agro-culture, although they choose to give *understand* as the answers. Most of them thought that agro-culture was limited in agriculture sub-sectors activities only, such as cultivation, horticulture, forestry, and plantation; while fishery and husbandry were not included in it. Researcher explained to them that agro-culture was not only limited in cultivation, forestry, horticulture, and plantation; but also fishery and husbandry, so that Etawa goats would be considered as an agro-tourism alternative beside durian and mangosteen.

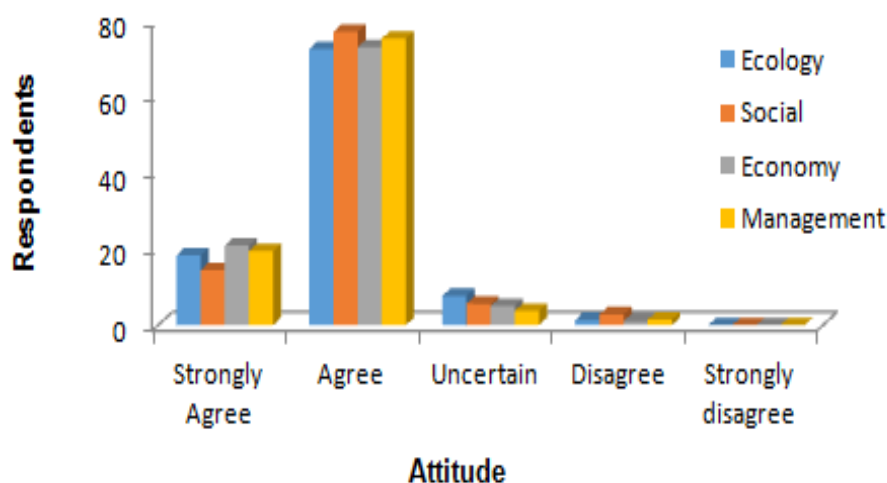
Closed questionnaire was used to find out the villagers' perception towards agro-tourism development plan in Dewi Kano. Interview results using this closed questionnaire is seen in Picture 1.

Picture 1, shows *attitude* from 100 respondents towards the agro-tourism development in Kaligono: 20 respondents are *strongly agree*, 70 *agree*, and other 10 respondents choose to give *uncertain* also *disagree* while there are *none* who give *strongly disagree*. Those who gave *uncertain* and *disagree* were caused by their opinions which believed that there would be require a lot of funds, and extensive lands; they also thought that the agro-tourism usually would be managed by private agency. Nevertheless, most of respondents tend to agree towards the development, because it will benefit them and environment with some positive effects in ecology, social, economy and management. Respondents' perception is seen in Table 2.

Table 1
Knowledge of Villagers in Agro-culture

| Attitude | Amount (People) |
|----------------|-----------------|
| Understand | 37 |
| Not Understand | 63 |
| Total | 100 |

Source: Data Analysis, 2018



Source: Data Analysis, 2018

Figure 1
Respondents' Attitude towards Agro-tourism Development Plan in Dewi Kano

Table 2
Respondents' Perception towards Agro-tourism Development

| Perception of Respondents | Perception Score | Category |
|-----------------------------|------------------|----------|
| Effect in Ecology Aspect | 4,078 | Agree |
| Effect in Social Aspect | 4,032 | Agree |
| Effect in Economy Aspect | 4,139 | Agree |
| Effect in Management Aspect | 4,131 | Agree |

Source: Data Analysis, 2018

Score of perception has 1,00 – 5,00 values; the average score is interpreted in following categories: 1-1,7 (Strongly Disagree), 1,8-2,5 (Disagree), 2,6-3,3 (Uncertain), 3,4-4,1 (Agree) and 4,2-5 (Strongly Agree). According to Table 2, the score of perception towards agro-tourism development in Dewi Kano which will affect the aspects of ecology, social, economy, and management is in *agree perception*. This result shows that local society are supporting agro-tourism development plan in their area.

Sustainable development pattern, indeed, should be based on three main aspects: ecology, social, and economy sustainability; it should have four criteria in *environmental responsibility, local economic vitality, cultural sensitivity, and experiential richness*, to be categorized in ecotourism (Haryanto, 2014). Management aspect is done with consideration, that for all these

times, Dewi Kano villagers has been successfully organized the area, so that the development will be managed by local community; as it is seen in agro-tourism development of Kembangarum (Andini, 2013).

Agro-tourism Development Effect towards Ecology Aspect in Dewi Kano

Dewi Kano has many potentials in developing durian and mangosteen agro-tourism according to the soil criteria and agro-climate condition; unfortunately, climate dependency makes harvest season of durians and mangosteen happened in special occasion only (quarter iv and quarter i) in every year. However, there are alternative nature tourist spots, for example: Curug Siklothok, Wukir Kencana hill panorama; and other activities such as: flying fox, rappelling and canyoning in Sidandhang nature park. There are also a place to learn

inmaking Wingko (traditional snacks from young coconuts), making palm sugar (gula jawa), and milking Etawa goats. Those are examples of implementation from *environmental responsibility* and *experiential richness*. Agro-tourism development in Dewi Kano gives effects to ecology, as follows:

1. Preserving potential and local natural resources.

Durian and mangosteen are the main commodity in Dewi Kano. They should be preserved because of the tree ages which reach tens to hundreds years of age. According to this observation, there's lack of responsibility in preserving durians and mangosteen. Agro-tourism development in Kaligono can be supported by potential tourism objects which had already developed, so that it can promote the rural construction and protect environment; agro-tourism tends to develop sustainable technique which positively affect biological diversity, landscape, and natural resource (Mastronardi et al., 2015) agritourism is considered an agricultural activity and can only be performed by a farmer. Moreover, Italian national legislation forces the farmer to dedicate himself mainly to traditional farming, rather than to tourism activities. For this reason, environmental performances have been highlighted by analyzing only features and production systems of the farms. By utilizing the most frequent indicators used in studies regarding sustainability, the authors show how Italian agritourisms tend to develop more environmentally friendly agricultural methods, which have a positive impact on biodiversity, landscape and natural resources. The empirical analysis is based on the Italian FADN (Farm Accountancy Data Network).

2. Adding Knowledge and Scientific Research.

Many of durian and mangosteen plants in Dewi Kano are packed as an educational tourism for visitors to learn how to cultivate durian or mangosteen. The

interview results with Bapak Suroto as the headman of Kaligono stated that agricultural area in Kaligono still contains a mixed of soil with various plants which are not well organized in spacing; so that, to develop an agro-tourism requires a lot of funds and a long time. However, planning for this agro-tourism is developed by managing the crops of durian, mangosteen, and Etawa goats cultivation which supported by nature. From researcher's field observation, found that tourists who came to Dewi Kano were able to enjoy the educational tour, such as making Wingko, milking Etawa goats, and learning some traditional arts in Sae Laras art house. This is an example of *experiential richness*. This research activity which is connected to the main potential things (durian and mangosteen) of Dewi Kano, has been done also by Gajah Mada University. Deep scientific research about durian in Kaligono to find out the superior variety of local durians, so that those variety can be released and registered in Agriculture Departement. In 2015, there were 98 kinds of durians with superior variety. There are more to find and release according to their origins name (Hadiati & Nasution, 2016).

3. Tourism Promotion Center in Connection with Durians and Mangosteen Agriculture Products.

Local government supported this by creating "Grebeg Durian" event, as a promotion to attract tourists visiting Dewi Kano. This local festival had been held two times, in 2016 and 2017. Visitors can buy high quality durians directly from the farmers in Dewi Kano. This annual festival is used by the farmers, because they don't have to struggle in selling durians and mangosteen to the public market; it will minimize the distribution process. For these recent two years, after Grebeg Durian was established, there were significance increase of visitors. This is used by Kaligono villagers to gain income. The role of local government in supporting this

festival is not only a part of establishing policy, but also pushing the local branding through product promotion (Bouchon, 2014).

Agro-tourism Development Effect towards Social Aspect in Dewi Kano

Dewi Kano has various arts and culture which are preserved until today. Traditional arts such as: Jaran Kepang, Hadroh, Soyar Maole, Wayang Orang (peoples' puppet show), Panembrono, Orkes Melayu (Organ), Dolalak, Incling, and Ketoprak are managed by the local arts studio and showed as arts performance. It is a way of arousing sense to respect and appreciate culture and art diversity, so that traditional custom becomes sustainable. This is an example of *cultural sensitivity* implementation. Agro-tourism development in Dewi Kano gives several social effects, such as:

1. Activity Center of Local Groups.
Most of Kaligono villagers are farmers. There are groups of farmers which spread in every area of Kaligono. They depend themselves in plantation with durian and mangosteen as its commodity. Agro-tourism development in Kaligono is encouraging farmers to keep cultivating durian and mangosteen on their groups.
2. Encouraging the development of cultural arts in local community along with agriculture which is done hereditary.
Field observation showed that Dewi Kano villagers had mastering "titen" science. It is a local wisdom which could be shown when harvest time of durians come. Half of Dewi Kano villagers have durian plantation which is located far from their home, so they can't suddenly check and watch their plants. Durians from Kaligono are ripe on the trees. They will just fall to the ground. Dewi Kano farmers have already known the characteristics of their own durians when the falling durian is out from the territory. For everyone who takes durian which belongs to others, there will be a social punishment.

Dewi Kano villagers is also routinely holding a tradition called "Merti Dusun", as an expression of gratitude for crops of durian and mangosteen. Those values of social and culture implementation are attributed to the environment condition, geographic, and a characteristic of a local area; thus, values of social and culture takes an important role in forest conservation efforts (Rodríguez-Piñeros & Mayett-Moreno, 2014). This tradition is used to attract tourists by showing Kirab Jolen, a Kirab which uses crops to be built as *gunungan*. There are various art shows, for example, Dolalak dance, Jatilan, Kuda Lumping, Wayang Orang, Rebana, Soyar Maole; which grow and spread in Dewi Kano local society are also supporting the agro-tourism development. Non physic values from custom, such as: traditional dances, local wisdom, pure local tradition, and traditional rituals are essential points in supporting the creation of sustainable tourism (Haryanto, 2013).

Agro-tourism Development Effect towards Economic Aspect in Dewi Kano

Economic factor has a significance effect, and it is felt directly by the villagers; thus, it affects their average income. Moreover, if this agro-tourism is well developed, it will affect the local PDRB (Barkauskas & Jasinikas, 2015). Agro-tourism development effect of Dewi Kano is seen in these three economic sides, such as:

1. Increasing famers' and local society income.
Agro-tourism development in Dewi Kano can increase farmers' income through direct products marketing without any expense for market distribution. Based on field observation, most of farmers were selling their crops to the public market with additional expense in distributing; that was why developing agro-tourism in Dewi Kano efficient for them. Moreover, villagers' willingness in making inns for tourists was also helping them in gaining more income. There was a concept of homestay; it was an example of implementation

from the efforts of increasing income according to *economic vitality*. Society role in supporting agro-tourism development is including in local wisdom which can be used as a fundamental in rural tourism sustainability (Vitasurya, 2016).

2. Opening new employment.

Skill and knowledge of Dewi Kano villagers in cultivating crops are insufficient, so they require *training* in cultivating durian and mangosteen for becoming more durable food. For all this time, durian and mangosteens crops sold as raw products; therefore, villagers were willing to create processed products from durian and mangosteen after joining training. *Home industry* which is existed in Dewi Kano only processing young coconuts as traditional snacks called Wingko. Agro-tourism development of Dewi Kano to create a new job offers together with the appearance of home industries which will absorb workers and create a new ecology industry for minimizing urbanization (Wang et al., 2013).

Agro-tourism Development Effect towards Management Aspect in Dewi Kano

Dewi Kano is managed by Dewi Kano Authority in village level, and Workers Group in hamlet level together with Tourism Awareness Group (*Pokdarwis*). There are Nuansa Alam which managing Curug Siklothok in Jeketro village, and Pokdarwis Joko Kendhil managing Taman Sidandhang in Kedungrante village. Durian and mangosteen plantation are spread in all of Kaligono area and become one of the villagers' most superior commodity.

According to the researcher's field observation, farmers association in Kaligono were happily receiving the agro-tourism development plan; they also intended to become main actors and participants in the planning process, construction, and development. Additionally, farmers were agree if their fields processed as a part of monoculture agro-tourism area by the investors

using profit-sharing system with the farmers themselves as subject. Those are affecting the development of agro-tourism in Dewi Kano, as it's seen on management aspect: able to increase the role of society in expanding potential tourism of Dewi Kano. The local government's active role is also required in supporting agro-tourism development.

Development Strategy of Agro-Tourism in Dewi Kano

Internal factor in environment condition which consists of strength, weakness, and the external factor of Dewi Kano, requires an analysis to be developed as an agro-tourism area. Analysis towards environment was done by giving values and measuring each factors using IFAS matrix (*Internal Factors Analysis Summary*) and EFAS (*External Factors Analysis Summary*) as it seen in Tabel 3 and Tabel 4 (attachment 1). These internal and external factors analysis is a crucial part from strategic planning, because it was called as the main component from sustainable development (Ghorbani et al., 2015) Iran and offering strategies for its sustainable development are the main objectives of this study. To this end, different decision making tools were used including questionnaires and interviews with experts, local residents and visitors of the wetland. Strengths, weaknesses, opportunities and threats (SWOT).

Scoring process in attachment 1 of internal and external factors was done by giving value for the coefficient: between 0 and 1, where coefficient 0 considered as unimportant, and coefficient 1 as important. This coefficient is a relative significance in measuring level of success from each factor; it is known in IFAS matrix as *quality*. The more effective the factors in sustainable development, the higher it gets quality. Each factor is given with *ratings* between 1 and 4 where 1 represents *major weakness*, 2 *minor weakness*, 3 *minor strength*, and 4 *major strength*. Each score from each factors is counted by multiplying the *quality* values with *ratings*. IFAS matrix

total score is found by adding each scores' factors. If the value is less than 2.5, means that *weakness* is exceeding *strength*; and if the value is more than 2.5, means that *strength* is exceeding *weakness* (Bohari et al., 2013). Those steps are repeated in counting EFAS; if EFAS matrix total score is less than 2.5, means that *threats* are exceeding *opportunities*; if the values are more than 2.5, it means that *opportunities* are exceeding *threats* (Ghorbani et al., 2015). Iran and offering strategies for its sustainable development are the main objectives of this study. To this end, different decision making tools were used including questionnaires and interviews with experts, local residents and visitors of the wetland. Strengths, weaknesses, opportunities and threats (SWOT).

IFAS matrix total score was 3.005, so the *strength* exceeded *weaknesses*. EFAS matrix total score was 2.795, so the *opportunities* exceeded *threats*. This shows that agro-tourism development planning in Dewi Kano has greater strength and opportunities; therefore, it can be used to improve the existed strength. The appropriate strategy according to the position of this agro-tourism area was *progressive strategy* which supporting agro-tourism growth. *Progressive strategy* can be used in Dewi Kano's development for planning construction, developing agro-tourism area according to tradition and local wisdom of its local society by putting forward the environment preservation, local communities participation (such as Farmers Group and Tourism Awareness Association as the main actors in developing agro-tourism); and in making educational recreation, for example, training in milking Etawa goats, making palm sugar, making Wingko, and planting durians.

CONCLUSION

Local society in Dewi Kano is supporting the agro-tourism development plans. It is seen from their perception which tends to agree, because it will give benefits in ecology, social, economy, and management. There are agro-tourism development ef-

fect: preserving natural resources potential, increasing scientific researches, establishing tourism promotion about durian and mangosteen as its leading agriculture, establishing society center, encouraging local cultural art to grow along with agriculture which was done hereditary, increasing farmers and society income, creating new employment, and encouraging society to be the participants in developing Dewi Kano's potentation. The appropriate strategy in developing agro-tourism in Dewi Kano is *progressive strategy*; means that the research location is in a great condition. It is possible to be developed as agro-tourism area by utilizing the available opportunities to gain more strength. There are strategies which coan be done, such as: organizing agro-tourism area development according to local wisdom, empowering local society and cooperation by keeping forward the fair and transparent management, establishing profit-sharing, establishing educational tour in agro-tourism; so, it can be developed more as *agro-edutourism*.

ACKNOWLEDGMENT

Researcher would like to thank the Head of Agriculture Information of Human Resource Development Agency and the Director General of Infrastructure and Facilities of Ministry of Agriculture for the chance and permission given to the researcher in taking study; Dr Sunarto MS; and Dr. Prabang Setyono, S.Si, M.Si for guiding the researcher in conducting research; Headman and employees of Kaligono village; and all of the society in Kaligono.

REFERENCES

- Andini, N. (2013). Pengorganisasian komunitas dalam pengembangan agrowisata di desa wisata studi kasus: desa wisata Kembangarum, Kabupaten Sleman. *Jurnal Perencanaan Wilayah Dan Kota*, 24(3), 173–188.
- Astuti, M. T. (2014). Potensi Agrowisata dalam Meningkatkan Pengembangan Pariwisata. *Jurnal Destinasi Pariwisata*, 1(17), 51–57.

- Barkauskas, V., & Jasinskas, E. (2015). Analysis of macro environmental factors influencing the development of rural tourism : Lithuanian case. *Procedia - Social and Behavioral Sciences*, 213(2015), 167–172. <https://doi.org/10.1016/j.sbspro.2015.11.421>
- Bohari, A. M., Hin, C. W., & Fuad, N. (2013). The competitiveness of halal food industry in Malaysia : A SWOT - ICT analysis. *Journal of Society and Space*, 1(1), 1–9.
- Bouchon, F. A. L. (2014). Truly Asia and global city? Branding strategies and contested identities in Kuala Lumpur. *Place Branding and Public Diplomacy*, 10(1), 6–18. <https://doi.org/10.1057/pb.2013.21>
- Budiarti, T., Suwanto, & Muflikhati, I. (2013). Pengembangan Agrowisata Berbasis Masyarakat pada Usahatani Terpadu guna Meningkatkan Kesejahteraan Petani dan Keberlanjutan Sistem Pertanian. *Jurnal Ilmu Pertanian Indonesia*, 18(3), 200–207.
- Ghorbani, A., Raufirad, V., Rafiaani, P., & Azadi, H. (2015). Ecotourism sustainable development strategies using SWOT and QSPM model: A case study of Kaji Namakzar Wetland, South Khorasan Province, Iran. *Tourism Management Perspectives*, 16(2015), 290–297. <https://doi.org/10.1016/j.tmp.2015.09.005>
- Hadiati, S., & Nasution, F. (2016). Karakterisasi dan Evaluasi Koleksi Sumber Daya Genetik Durian Berdasarkan Karakter Morfologi Buah. *Buletin Plasma Nuttfah*, 22(1), 1–10.
- Haryanto, J. T. (2013). Implementasi Nilai-nilai Budaya, Sosial, dan Lingkungan Pengembangan Desa Wisata di Provinsi Yogyakarta. *Jurnal Kawistara*, 3(1), 1–11.
- Haryanto, J. T. (2014). Model Pengembangan Ekowisata Dalam Mendukung Kemandirian Ekonomi Daerah Studi Kasus Provinsi DIY. *Jurnal Kawistara*, 19(3), 271–286. <https://doi.org/10.22146/kawistara.6383>
- Kusmaryadi dan Sugiarto. (2000). Metodologi Penelitian dalam Bidang Kepariwisata. Jakarta: PT. Gramedia Pustaka Utama
- Mastronardi, L., Giaccio, V., Giannelli, A., & Scardera, A. (2015). Is agritourism eco-friendly? A comparison between agritourisms and other farms in Italy using farm accountancy data network dataset. *SpringerPlus*, 4(1), 1–12. <https://doi.org/10.1186/s40064-015-1353-4>
- Palit, I. G., Talumungan, C., & Rumagit, G. A. J. (2017). Strategi Pengembangan Kawasan Agrowisata Rurukan. *Jurnal Agri-Sosio Ekonomi Unsrat*, 13(2), 21–34.
- Pamulardi, B. (2006). *Pengembangan Agrowisata Berwawawan Lingkungan (Studi Kasus Desa Wisata Tingkir, Salatiga)*. Universitas Diponegoro. Retrieved from eprints.undip.ac.id
- Petroman, C., Mirea, A., Lozici, A., Constantin, E. C., Marin, D., & Merce, I. (2016). The Rural Educational Tourism at the Farm. *Procedia Economics and Finance* 39 (November 2015), 88–93. [https://doi.org/10.1016/S2212-5671\(16\)30245-3](https://doi.org/10.1016/S2212-5671(16)30245-3)
- Petroman, I., Varga, M., Claudia, E., Petroman, C., Momir, B., Turc, B., & Merce, I. (2016). Agritourism : An Educational Tool for the Students with Agro-Food Profile. *Procedia Economics and Finance* 39 (November 2015), 83–87. [https://doi.org/10.1016/S2212-5671\(16\)30244-1](https://doi.org/10.1016/S2212-5671(16)30244-1)
- Rangkuti, F. (2015). *Analisis SWOT : Teknik Membedah Kasus Bisnis Cara Perhitungan Bobot, Rating, dan OCAI*. Jakarta: PT.Gramedia Pustaka Utama.
- Rodríguez-Piñeros, S., & Mayett-Moreno, Y. (2014). Forest owners' percep-

- tions of ecotourism: Integrating community values and forest conservation. *Ambio*, 44(2), 99–109. <https://doi.org/10.1007/s13280-014-0544-5>
- Singarimbun, M. dan Effendi, S. (2002). *Penentuan Sampel*. Jakarta. Penerbit Grafindo.
- Soedarya, A.P. (2009). *Budidaya Usaha Pengolahan Agribisnis Durian*. Bandung. Pustaka Grafika.
- Sutama, I. K. (2011). Kambing Peranakan Etawah Sumberdaya Ternak Penuh Berkah. Sinar Tani.
- Ulfah, I. F., Setiawan, A., & Rahmawati, A. (2017). Pembangunan Desa Berbasis Potensi Lokal Agrowisata di desa Bumiaji, Kota Batu, Jawa Timur. *Politik Indonesia: Indonesian Political Science Review*, 1(2), 46–64.
- Usman, Hakim, L., & Malik, I. (2012). Strategi Pemerintah Daerah dalam Pengembangan Agrowisata di Kabupaten Bantaeng. *Jurnal Ilmu Pemerintahan*, 2(2), 191–200.
- Vitasurya, V. R. (2016). Local Wisdom for Sustainable Development of Rural Tourism, Case on Kalibiru and Lopati Village, Province of Daerah Istimewa Yogyakarta. *Procedia - Social and Behavioral Sciences* 216 (October 2015): 97–108. <https://doi.org/10.1016/j.sbspro.2015.12.014>
- Wang, L. en, Cheng, S. kui, Zhong, L. sheng, Mu, S. lin, Dhruba, B. G. C., & Ren, G. zhu. (2013). Rural tourism development in China: Principles, models and the future. *Journal of Mountain Science* 10(1), 116–129. <https://doi.org/10.1007/s11629-013-2501-3>
- Wiryanta, B.T.W. (2002). *Kiat Mengatasi Masalah Praktis Bertanam Durian*. Jakarta: Agromedia Pustaka.
- Yoeti, O.A. (2000). *Ecotourism, Pariwisata Berwawasan Lingkungan Dalam Ekowisata (Pariwisata Berwawasan Lingkungan Hidup)*. Jakarta : PT. Pertja.

Attachment 1. IFAS matrix (Internal Factors Analysis Summary)

| Internal Factors | Quality | Rating | Score |
|--|-------------|-----------|--------------|
| <u>Strength</u> | | | |
| • Nature panorama | 0,06 | 3 | 0,18 |
| • Natural resources diversity | 0,09 | 4 | 0,36 |
| • Suitable area (agro-climate and type of soil) | 0,07 | 3 | 0,21 |
| • Organic fertilizer in cultivating soil | 0,08 | 4 | 0,32 |
| • Strategic location in alternative road between 2 provinces | 0,075 | 4 | 0,3 |
| • Support from art performances | 0,06 | 3 | 0,18 |
| • Tradition and local wisdom | 0,07 | 4 | 0,28 |
| • The availability of local communities/groups | 0,06 | 3 | 0,18 |
| • Located on the center of Kaligesing district | 0,065 | 3 | 0,195 |
| Strength Total Score | 0,63 | 31 | 2,205 |
| <u>Weaknesses</u> | | | |
| • Farming land cultivation which still depends on climate. | 0,08 | 1 | 0,08 |
| • Lack of awareness in conserving natural resources. | 0,07 | 2 | 0,14 |
| • Limitation in giving attention to the villagers' skill in processing crops. | 0,03 | 3 | 0,09 |
| • Lack of infrastructure in basic facility, such as: accommodation and public transport. | 0,03 | 3 | 0,09 |
| • Insufficient fund for conservation and educational scientific research. | 0,03 | 3 | 0,09 |
| • Lack of quality in sanitation. | 0,02 | 3 | 0,06 |
| • Irregularity of environment arrangement. | 0,03 | 3 | 0,09 |
| • Inadequate cellular communication network. | 0,08 | 2 | 0,16 |
| Weakness Total Score | 0,37 | 20 | 0,80 |
| Total Score of Internal Factors | 1,0 | 51 | 3,005 |

Source: Observation and Data Analysis, 2018.

Attachment 2. EFAS matrix (Eksternal factors Analysis Summary)

| Faktor Eksternal | Quality | Rating | Score |
|--|----------------|---------------|--------------|
| <u>Opportunities</u> | | | |
| • The increasing numbers of visitors in every year; had been visited by foreigners. | 0,07 | 3 | 0,21 |
| • New Yogyakarta International Airport's construction in Kulon Progo. | 0,09 | 4 | 0,36 |
| • Freeway construction plan crossing Menoreh hill. | 0,08 | 3 | 0,24 |
| • In accordance with Vision and Mission of Purworejo regency. | 0,07 | 3 | 0,21 |
| • The establishment of agropolitan area. | 0,075 | 3 | 0,225 |
| • Located near Seplawan Cave cluster development. | 0,075 | 3 | 0,225 |
| • Necessity in alternative tourism destinations. | 0,05 | 2 | 0,1 |
| • Society perception of agro-tourism which will increase their income and open new employment. | 0,1 | 4 | 0,4 |
| • Utilizing the nature tourism, culture and religion, culinary in attracting tourists. | 0,085 | 4 | 0,34 |
| Opportunities Total Score | 0,695 | 29 | 2,31 |
| <u>Threats</u> | | | |
| • Competition with other tourist village of similar potentials. | 0,09 | 1 | 0,09 |
| • Alteration in people's mindset. | 0,05 | 2 | 0,1 |
| • Planning on forest area utilization becoming un-utilized forest area. | 0,065 | 3 | 0,195 |
| • So many fallen trees caused by the trees' age, weather, and climate. | 0,060 | 1 | 0,06 |
| • Disturbed by landslides. | 0,04 | 1 | 0,04 |
| Threats Total Score | 0,305 | 8 | 0,485 |
| Total Score of External Score | 1,0 | 37 | 2,795 |

Source: Observation and Data Analysis, 2018.